

WHAT IS CLAIMED IS:

1. A method of facilitating redirection of traffic between a server and a client to between the client and a selected one from a plurality of replicas, the method comprising:

receiving a packet from a client, the packet having a destination  
5 identifier associated with a server;

when the packet is a start packet, adding a tag to the start packet to indicate that the start packet should be forwarded to any replica that duplicates the data content of the server;

storing the destination identifier of the start packet;

10 after storing the destination identifier of the start packet and tagging the start packet, sending the start packet to the server;

when a first acknowledgement packet associated with the start packet is received, storing and associating a source identifier of the first acknowledgement packet with the stored destination identifier of the start  
15 packet;

after storing and associating the source identifier of the first acknowledgement packet, sending the first acknowledgement packet to the client;

prior to storing and associating the source identifier of the first  
20 acknowledgement packet, cracking the first acknowledgement packet to obtain the source identifier when the first acknowledgement packet has been encapsulated; and

when cracked, encapsulating the cracked acknowledgement packet with a source address associated with the packet, wherein the encapsulated first acknowledgement packet is sent to the client.

2. A method as recited in claim 1, further comprising:

5 when a subsequent packet associated with the start packet is received that is not a start packet or an acknowledgement packet, replacing destination identifier of the subsequent packet with a destination identifier equal to the source identifier of the acknowledgement packet prior to being cracked or encapsulating the subsequent packet with a destination identifier equal to the source identifier of the acknowledgement packet prior to being cracked when  
10 the subsequent packet originates from the client; and

forwarding the subsequent packet to its destination.

3. A method as recited in claim 2, wherein the subsequent packet is only modified when the destination identifier of the packet does not equal the destination  
15 identifier of the start packet.

4. A method as recited in claim 1, wherein the start packet is only tagged when the start packet is associated with web data, and the method further comprising sending the start packet to the server without the tag when the start packet is not associated with web data.

20 5. A method as recited in claim 4, wherein the start packet is associated with web data when the start packet has a destination port utilized for accessing web data.

6. A computer system operable to facilitate redirection of traffic between a server and a client to between the client and a selected one from a plurality of replicas, the computer system comprising:

a memory; and

5 a processor coupled to the memory,

wherein at least one of the memory and the processor are adapted to provide:

receiving a packet from a client, the packet having a destination identifier associated with a server;

10 when the packet is a start packet, adding a tag to the start packet to indicate that the start packet should be forwarded to any replica that duplicates the data content of the server;

storing the destination identifier of the start packet;

after storing the destination identifier of the start packet and tagging the start packet, sending the start packet to the server;

15 when a first acknowledgement packet associated with the start packet is received, storing and associating a source identifier of the first acknowledgement packet with the stored destination identifier of the start packet;

20 after storing and associating the source identifier of the first acknowledgement packet, sending the first acknowledgement packet to the client;

prior to storing and associating the source identifier of the first acknowledgement packet, cracking the first acknowledgement packet to

obtain the source identifier when the first acknowledgement packet has been encapsulated; and

when cracked, encapsulating the cracked packet with a source address associated with the packet, wherein the encapsulated first acknowledgement packet is sent to the client.

7. A computer system as recited in claim 6, wherein at least one of the memory and the processor are further adapted to provide:

when a subsequent packet associated with the start packet is received that is not a start packet or an acknowledgement packet, replacing destination identifier of the subsequent packet with a source identifier of the cracked acknowledgement packet associated with the subsequent packet or encapsulating the subsequent packet with a destination identifier equal to the source identifier of the acknowledgement packet prior to being cracked when the subsequent packet originates from the client; and

forwarding the subsequent packet to its destination.

8. A computer system as recited in claim 6, wherein the subsequent packet is only modified when the destination identifier of the packet does not equal the destination identifier of the start packet.

9. A computer system as recited in claim 6, wherein the start packet is only tagged when the start packet is associated with web data, and the method further comprising sending the start packet to the server without the tag when the start packet is not associated with web data.

10. A computer system as recited in claim 9, wherein the start packet is associated with web data when the start packet has a destination port utilized for accessing web data.

11. A computer program product for facilitating redirection of traffic between a server and a client to between the client and a selected one from a plurality of replicas, the computer program product comprising:

at least one computer readable medium;

computer program instructions stored within the at least one computer readable product configured to cause a processing device to:

receive a packet from a client, the packet having a destination identifier associated with a server;

when the packet is a start packet, add a tag to the start packet to indicate that the start packet should be forwarded to any replica that duplicates the data content of the server;

store the destination identifier of the start packet;

after storing the destination identifier of the start packet and tagging the start packet, send the start packet to the server;

when a first acknowledgement packet associated with the start packet is received, store and associate a source identifier of the first acknowledgement packet with the stored destination identifier of the start packet;

after storing and associating the source identifier of the first acknowledgement packet, send the first acknowledgement packet to the client;

prior to storing and associating the source identifier of the first acknowledgement packet, crack the first acknowledgement packet to obtain the source identifier when the first acknowledgement packet has been encapsulated; and

5           when cracked, encapsulate the cracked packet with a source address associated with the packet, wherein the encapsulated first acknowledgement packet is sent to the client.

12.   A method of facilitating redirection of traffic between a server and a client to between the client and a nearest replica selected from a plurality of replicas, the method  
10   comprising:

          receiving a packet that is travelling between a client and a server or between the client and a replica;

          when the received packet is a start packet that is travelling from the client to the server, altering the start packet to indicate that the start packet  
15   should be forwarded to any replica that duplicates the data content of the server;

          when the received packet is an acknowledgement packet that is received first and spoofs the server, obtaining a source identifier of the replica from the acknowledgement when the acknowledgement originates from the  
20   replica; and

          when the received packet is a subsequent packet received after the start packet and the acknowledgement packet, altering the subsequent packet so that it goes to the replica when the subsequent packet originates from the

client, wherein the alteration is based on the obtained source identifier from the acknowledgement packet.

13. A method as recited in claim 12, wherein the source identifier of the replica is obtained from the acknowledgement packet by cracking the acknowledgement packet when it is encapsulated.

14. A method as recited in claim 13, further comprising re-encapsulating the cracked acknowledgement packet prior to sending it to the client.

15. A method as recited in claim 12, wherein the start packet is altered by adding a tag to or modifying the tag of the start packet to indicate that the start packet should be forwarded to any replica that duplicates data content of the server.

16. A method as recited in claim 12, wherein the subsequent packet is altered by replacing the subsequent packet's destination identifier with a destination identifier of the start packet.

17. A method as recited in claim 12, wherein the subsequent packet is altered by encapsulating the subsequent packet with a destination identifier of the start packet.

18. A computer system operable to facilitate redirection of traffic between a server and a client to between the client and a nearest replica selected from a plurality of replicas, the computer system comprising:

a memory; and

a processor coupled to the memory,

wherein at least one of the memory and the processor are adapted to

provide:

receiving a packet that is travelling between a client and a server or between the client and a replica;

when the received packet is a start packet that is travelling from the client to the server, altering the start packet to indicate that the start packet should be forwarded to any replica that duplicates the data content of the server;

when the received packet is an acknowledgement packet that is received first and spoofs the server, obtaining a source identifier of the replica from the acknowledgement when the acknowledgement originates from the replica; and

when the received packet is a subsequent packet received after the start packet and the acknowledgement packet, altering the subsequent packet so that it goes to the replica when the subsequent packet originates from the client, wherein the alteration is based on the obtained source identifier from the acknowledgement packet.

19. A computer system as recited in claim 18, wherein the source identifier of the replica is obtained from the acknowledgement packet by cracking the acknowledgement packet when it is encapsulated.

20. A computer system as recited in claim 19, further comprising re-encapsulating the cracked acknowledgement packet prior to sending it to the client.

21. A computer system as recited in claim 18, wherein the start packet is altered by adding a tag to or modifying the tag of the start packet to indicate that the start packet should be forwarded to any replica that duplicates data content of the server.



22. A computer system as recited in claim 18, wherein the subsequent packet is altered by replacing the subsequent packet's destination identifier with a destination identifier of the start packet.

23. A computer system as recited in claim 18, wherein the subsequent packet is altered by encapsulating the subsequent packet with a destination identifier of the start packet.

24. A computer program product for facilitating redirection of traffic between a server and a client to between a server and a client to between the client and a nearest replica selected from a plurality of replicas, the computer program product comprising:

at least one computer readable medium;

computer program instructions stored within the at least one computer readable product configured to cause a processing device to:

receive a packet that is travelling between a client and a server or between the client and a replica;

when the received packet is a start packet that is travelling from the client to the server, alter the start packet to indicate that the start packet should be forwarded to any replica that duplicates the data content of the server;

when the received packet is an acknowledgement packet that is received first and spoofs the server, obtain a source identifier of the replica from the acknowledgement when the acknowledgement originates from the replica; and

when the received packet is a subsequent packet received after the start packet and the acknowledgement packet, alter the subsequent packet so that it goes to the replica when the subsequent packet originates from the client,

wherein the alteration is based on the obtained source identifier from the acknowledgement packet.

25. An apparatus product for facilitating redirection of traffic between a server and a client to between a server and a client to between the client and a nearest replica selected from a plurality of replicas, the apparatus comprising:

means for receiving a packet that is travelling between a client and a server or between the client and a replica;

means for altering the start packet to indicate that the start packet should be forwarded to any replica that duplicates the data content of the server when the received packet is a start packet that is travelling from the client to the server;

means for obtaining a source identifier of the replica from the acknowledgement when the acknowledgement originates from the replica when the received packet is an acknowledgement packet that is received first and spoofs the server; and

means for altering the subsequent packet so that it goes to the replica when the subsequent packet originates from the client when the received packet is a subsequent packet received after the start packet and the acknowledgement packet, wherein the alteration is based on the obtained source identifier from the acknowledgement packet.